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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/893,784	06/29/2001	Takashi Kitaguchi	210371US2	6289
22850	7590	02/10/2005	EXAMINER	
OBLON, SPIVAK, MCCLELLAND, MAIER & NEUSTADT, P.C. 1940 DUKE STREET ALEXANDRIA, VA 22314			VIEAUX, GARY	
			ART UNIT	PAPER NUMBER
			2612	

DATE MAILED: 02/10/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No.	Applicant(s)	
	09/893,784	KITAGUCHI ET AL.	
	Examiner	Art Unit	
	Gary C. Vieaux	2612	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 21 October 2004.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 23-26 is/are pending in the application.
- 4a) Of the above claim(s) 1-22 and 27-35 is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 23,25 and 26 is/are rejected.
- 7) ☒ Claim(s) 24 is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 29 June 2001 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date <u>6/29/2001</u> . | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Priority

Acknowledgment is made of applicant's claim for foreign priority under 35 U.S.C. 119(a)-(d). The certified copy of Japanese patent application number 2000-200198, filed on June 30, 2000, and received on June 29, 2001, has been made of record.

Information Disclosure Statement

The information disclosure statement (IDS) submitted on the following date is in compliance with the provisions of 37 CFR 1.97 and is being considered by the Examiner: June 29, 2001.

Election of Species Requirement

Applicant's Response to the Election of Species Requirement of September 21, 2004, has been received and made of record. Election was made in relation to the sixth species as represented by figures 17-18, and lists claims 23-26 as being readable thereon.

Claims 1-22 and 27-35 are withdrawn from further consideration pursuant to 37 CFR 1.142(b), as being drawn to a nonelected species, there being no allowable generic or linking claim.

Applicant's election with traverse of claims 1-22 and 27-35 in the reply timely filed on October 21, 2004 is acknowledged. The traversal is on the ground(s) that a search and examination of the entire application could be made without serious burden. This is

not found persuasive because the non-elected species, although containing several components related to the elected species, also involve additional and divergent components which conspicuously set them apart from the elected species and which would each require separate searches and consideration. Therefore, the Examiner asserts that an undue burden would exist regarding a search of the claims associated with the non-elected species.

The requirement is still deemed proper and is therefore made FINAL.

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claims 23, 25, and 26 are rejected under 35 U.S.C. 103(a) as being unpatentable over Dunton et al. (US #6,304,284) in view of Examiner's Official Notice.

Regarding claim 23, Dunton teaches an image input apparatus comprising an image pickup unit which optically scans a subject and thereby acquires plural images of the subject that are partial images of the subject (figs. 1B and 4; col. 6 lines 20-23), wherein said image pickup unit obtains the partial images by moving in a plane that is parallel to a plane of the subject and without touching the subject (fig. 1B; col. 4 lines 5-10), an overlapping amount calculating unit which calculates an amount of overlap between the partial images picked up by the image pickup unit (col. 5 lines 2-6; col. 8

lines 25-32), and an image recording determination unit which determines whether or not the current partial image is to be recorded based upon the amount of overlap calculated by the overlapping amount calculating unit (col. 8 lines 30-32.)

However, although Dunton teaches a camera that is employed the multiple functions of both picking up an image to be used in overlap calculations, as well as picking up images to be recorded, Dunton does not teach separate image pickup units, in which a first unit is employed in the overlap calculation using an image being picked up, and a second unit employed in the recording of an image being picked up.

Official Notice is taken of the fact that a camera that conducts multiple functions, can be substituted with multiple cameras conducting the functions individually; a concept that is well known and excepted in the art. It would have been obvious to employ separate image pickup units in the device as taught by Dunton, in order to create an apparatus in which the functionality is applied to separate dedicated devices, one device for each function (overlap calculation and recording), resulting in easier troubleshooting and repair based on a simplified design which employs separate components. This may also result in the potential for easier updating of individual components based on improvements related to their specific functionality.

Regarding claim 25, Dunton teaches all the limitations of claim 25 (see the 103(a) rejection to claim 23 supra) except for directly teaching an image input apparatus wherein said image recording determination unit stops acquiring the images when the amount of shift of said image pickup unit is greater than a desired value. However, Dunton does teach a subsequent image not being recorded until an optimum overlap is

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achieved (col. 8 lines 42-51.) Based on the teachings of Dunton, it would have been obvious to one of ordinary skill in the art at the time of the invention to include in the determination of optimum overlap, shifts less than the desired value and shifts of greater than a desired value, in order to insure both enough overlap data for proper reconstruction of the image, as well as to conserve valuable memory by not allowing for capture of unnecessary overlap data.

Regarding claim 26, Dunton teaches all the limitations of claim 26 (see the 103(a) rejection to claim 23 supra) including teaching an image input apparatus further comprising an image composing unit which composes all or a portion of the partial images of the subject to obtain a single image (fig. 1A indicator 140; col. 4 lines 25-33.)

Allowable Subject Matter

Claims 24 is objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

Regarding claim 24, the prior art is not found to teach or fairly suggest, in combination with the claims from which dependence is derived, counting the time elapsed since a partial image was taken, in order to determine whether the next partial image can be recorded.

Conclusion

The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

Dance et al. (US #6,512,539) discloses "over the desk" scanning device, operating in a non-contact, parallel plane above the subject to be imaged, and employed mosaicing individual images into a composite image.

Katayama et al. (US #6,389,179) discloses prediction of the correct amount of overlap prior to image capture.

Anderson (US #6,657,667) discloses employing a viewfinder in determining correct amount of overlap.

Contact

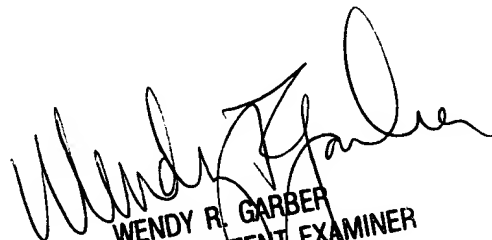
Any inquiry concerning this communication or earlier communications from the examiner should be directed to Gary C. Vieaux whose telephone number is 703-305-9573 until March 1, 2005, and 571-272-7318 afterwards. The examiner can normally be reached during his normal office hours, which are Monday - Friday, 8:00am - 4:00pm, with alternating Fridays off.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Wendy Garber (SPE 2612) can be reached at 703-305-4929 until March 1, 2005, and at 571-272-7308 afterwards. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

Gary C. Vieaux
Examiner
Art Unit 2612

Gcv2


WENDY R. GARBER
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